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## Full Integration of OPS version 3.0 RESTful Web Services from the European Patent Office in GeneMOB's PatMOB\_0.6

Hillsborough, NJ, January 1, 2013 -- GeneMOB released version 0.6 (Beta) of its patent information management software, Patent Mobile Objects (PatMOB). With the extensive support for the newest version of the Open Patent Services (OPS) from the European Patent Office, PatMOB\_0.6 becomes – out of the box – an attractive solution for the basic needs of patent information professionals.

PatMOB is a patent software platform designed to facilitate rapid development of plug-ins for management and conversions of various patent data formats. The use of custom designed PatMOB plug-ins for patent landscaping at a global pharmaceutical company has been recently described (*Masiakowski P, Wang S, Integration of software tools in patent analysis, World Patent Information (2013), <http://dx.doi.org/10.1016/j.wpi.2012.12.010>, in press*). PatMOB is currently deployed as a Java desktop application, combining an intuitive graphical user interface (GUI), with an application programming interface (API) for plug-in development. The API exposes a rich core infrastructure, including the JavaDB relational database for permanent storage of patent collections and notes. Full integration of OPS 3.0 further expands the functionality of PatMOB infrastructure.

OPS is an excellent, free of charge Internet resource from the European Patent Office, offering real-time programmatic access to the production stable EPO patent data; version 3.0 introduces support for the Cooperative Patent Classification (CPC). OPS implements all services with an elegantly designed and well documented and maintained REST architecture. PatMOB\_0.6 includes a multi-threaded, Apache HttpClient 4.2.2-based, REST client (OpsRestClient) designed for efficient use of all OPS services. For example, OpsRestClient adheres to OPS fair use policy by monitoring the throttling information sent in the HTTP response headers, and adjusting its request activity when needed.

A number of ServiceRequest classes, included in PatMOB\_0.6 API, can be used to submit patent data requests to OpsRestClient and process the OPS responses. They include BiblioSearchRequest, BulkBiblioRequest, CpcSearchRequest, EquivalentsRequest, ImageRequest, InpadocFamilyRequest and LegalRequest. In addition, plug-in developers can quickly create new types of requests by writing new Java classes that implement the OpsServiceRequest Java interface and, optionally, extend the abstract OpsXPathParser class. Thus, it is easy to create modules utilizing all types of patent data available at the European Patent Office. For example, the REST@OPS plug-in included in PatMOB-0.6 allows retrieval of the EPO data through bibliographic searches using common query language (CQL) and CPC searches (see below).

Seamless access to EPO data is built into the standard Tree Branch Editor included in PatMOB GUI. In PatMOB\_0.6 – in addition to the publication full-cycle bibliographic information – patent equivalents, INPADOC family and legal status information is available for one-click lookup for all the patent publications displayed in the editor window. The following screenshots show the REST@OPS plug-in and the Tree Branch Editor displaying a wide variety of data from Open Patent Services.

**For more information on PatMOB, please go to <http://genemob.com/patent/>. Please send email to [info@genemob.com](mailto:info@genemob.com) to enroll in beta-testing of PatMOB\_0.6.**

## PatMOB\_0.6 Screenshots

REST@OPS Web Services

Biblio Search CPC Search

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ta all "antibody drug conjugate*" and cpc=/low C07K16/00
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Sample Results All Results Clear

SAMPLE [ta all "antibody drug conjugate\*"]: 25 hits out of 612

CPC query [antibody]

21.505377	C07K16/00	Immunoglobulins [IGs], e.g. monoclonal or polyclonal ar
5.734767	A61K39/00	Medicinal preparations containing antigens or antibodies
5.1971326	G01N33/00	Investigating or analysing materials by specific method
3.5842295	A61K38/00	Medicinal preparations containing peptides
3.4050179	C12N9/00	Enzymes
3.2258065	A61K47/00	Medicinal preparations characterised by the non-active
3.046595	C07K14/00	Peptides having more than 20 amino acids

SAMPLE [ta all "antibody drug conjugate\*" and cpc=/low C07K16/00]: 25 hits out of 242  
SAMPLE [ta all "antibody drug conjugate\*" and cpc=/low A61K39/00]: 25 hits out of 156  
ALL [ta all "antibody drug conjugate\*" and cpc=/low A61K39/00]: 156 hits in 44 families  
ALL [ta all "antibody drug conjugate\*" and cpc=/low C07K16/00]: 242 hits in 78 families

An example session in REST@OPS plug-in. The history text area in the lower part of the window shows the results of some CQL queries submitted from the "Biblio Search" tab using the "Sample Results" and "All Results" buttons, and a CPC query submitted from the "CPC Search" tab.

The next four screenshots show the result of the last search – which retrieved 242 patent documents organized in 78 simple families – displayed in PatMOB Tree Branch Editor. Selecting a patent publication in the tree on the left displays the EPO data for that publication in the right panel. The default display is the publication full-cycle bibliographic summary, but the radio buttons in the bottom panel allow selection of the patent equivalents (with front page images if available), INPADOC family, or legal status summary display.

Tree Branch Editor: All [ta all "antibody drug conjugate\*" and cpc=/low C07K16/00]

File Edit

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  - Family 10708338
  - Family 15750289
  - Family 20284677
  - Family 21926083
  - Family 23028765
  - Family 23112388
  - Family 25006733
  - Family 25079669
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  - Family 36588360
  - Family 36605757
  - Family 36684374

PN: US2010003766 A1  
PD: 20100107  
TI: CYSTEINE ENGINEERED ANTIBODIES AND CONJUGATES  
PA: GENENTECH INC [US]  
AB: Antibodies are engineered by replacing one or more amino acids of a parent antibody with non cross-linked, highly reactive cysteine amino acids. Antibody fragments may also be engineered with one or more cysteine amino acids to form cysteine engineered antibody fragments (ThioFab). Methods of design, preparation, screening, and selection of the cysteine engineered antibodies are provided. Cysteine engineered antibodies (Ab), optionally with an albumin-binding peptide (ABP) sequence, are conjugated with one or more drug moieties (D) through a linker (L) to form cysteine engineered antibody-drug conjugates having Formula I: Ab-(L-D)<sub>p</sub> I where p is 1 to 4. Diagnostic and therapeutic uses for cysteine engineered antibody drug compounds and compositions are disclosed.

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PN: US8309300 B2  
PD: 20121113  
TI: CYSTEINE ENGINEERED ANTIBODIES AND CONJUGATES  
PA: GENENTECH INC [US]  
AB: Antibodies are engineered by replacing one or more amino acids of a parent antibody with non cross-linked, highly reactive cysteine amino acids. Antibody fragments may also be engineered with one or more cysteine amino acids to form cysteine engineered antibody fragments (ThioFab). Methods of design, preparation, screening, and selection of the cysteine engineered antibodies are provided. Cysteine engineered antibodies (Ab), optionally with an albumin-binding peptide (ABP) sequence, are conjugated with one or more drug moieties (D) through a linker (L) to form cysteine engineered antibody-drug conjugates having Formula I: Ab-(L-D)<sub>p</sub> I where p is 1 to 4. Diagnostic and therapeutic uses for cysteine engineered antibody drug compounds and compositions are disclosed.

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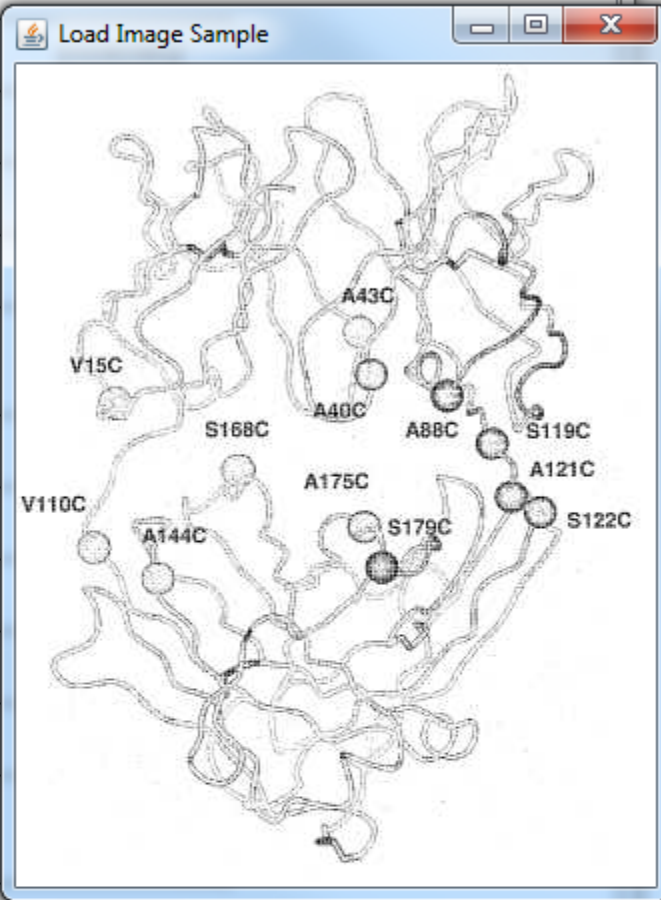
Patent Info Display

Full-cycle  
 Equivalents  
 INPADOC Family  
 Legal Status

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Patent Info Display

- Full-cycle
- Equivalents**
- INPADOC Family
- Legal Status

Tree Branch Editor: All [ta all "antibody drug conjugate\*" and cpc=/low C07K16/00]

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Full-cycle
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  INPADOC Family
  Legal Status

Tree Branch Editor: All [ta all "antibody drug conjugate\*" and cpc=/low C07K16/00]

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Family 15750289	2007-04-25	RIC1	CLASSIFICATION (CORRECTION)
Family 20284677	2007-04-25	RIC1	CLASSIFICATION (CORRECTION)
Family 21926083	2007-04-25	RIC1	CLASSIFICATION (CORRECTION)
Family 23028765	2007-04-25	RIC1	CLASSIFICATION (CORRECTION)
Family 23112388	2007-04-25	RIC1	CLASSIFICATION (CORRECTION)
Family 25006733	2007-04-25	RIC1	CLASSIFICATION (CORRECTION)
Family 25079669	2007-05-02	A4	SUPPLEMENTARY SEARCH REPORT
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